HELP ?

Dealing with Azerbaijan's oil boom

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[Headnote]

How can transition countries in the Caspian Sea region and Central Asia that are rich in natural resources manage them to maximum advntage, while limiting the risks they pose?

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THE development of Azerbaijan's oil fields started in 1994, with the signing of the "Contract of the Century" with major Western oil companies. Today, Azerbaijan is experiencing an investment boom in the petroleum sector and the construction and service sectors. While the related balance of payments inflows currently appear quite beneficial to the country's economy, they could turn into a curse commonly known as the "Dutch disease." Why, one might ask, should a country suffer from the exploitation of its natural wealth? The following problems may be relevant to the case of Azerbaijan.

Macroeconomic stability may be affected through three channels. First, there is a risk to monetary stability, particularly if the central bank does not react appropriately to the balance of payments inflows associated with the petroleum boom. Often such inflows are related to an increase in money demand, and sterilization of the monetary impact of these flows by the central bank to contain inflation may be neither necessary nor desirable. If the credibility of the stabilization program is weak and inflows are particularly strong, however, partial sterilization may be called for in order to avoid an excessive increase in the money supply and inflation, and, consequently, a further push toward real exchange rate appreciation. On the other hand, if monetary policy overreacts and is too tight, this may lead to a strong nominal appreciation and to an overshooting of the real exchange rate, particularly if domestic goods prices are sticky but asset prices are flexible. The problem is to strike a balance between price stability and nominal appreciation. Second, uncertainties about the magnitude and timing of petroleum revenues pose risks to balance of payments sustainability. Azerbaijan's current account deficit rose from 11 percent of GDP in 1995 to 22 percent in 1997 (mainly owing to oil sector imports), and pressures to contract large amounts of nonconcessional foreign debt are mounting. Third, unpredictable revenue inflows may lead to "ratchet effects" on government spending and pose threats to the stability of the country's fiscal policy stance. In addition, the incoming petroleum revenues may promote rent-seeking behavior: resource-rich countries have often pursued protectionist policies that foster extensive bureaucracy and corruption, and have significant negative impacts on growth.

The classic Dutch disease argument focuses on unbalanced growth among the petroleum sector, the nonpetroleum traded goods sector, and the expanding nontraded goods sector. If the additional wealth created by oil production is spent on nontraded goods, their prices relative to those of tradable goods prices must rise, and the real exchange rate will appreciate. As a result, the international competitiveness of the traditional traded goods sector will diminish. Indeed, there are already indications in Azerbaijan that the share of the nontraded goods sector (which consists primarily of retail trade, restaurants and hotels, and construction) in GDP is expanding faster than in transition countries that are not oil producers.

The Dutch disease in a transition economy

The early experience in Azerbaijan suggests that several of the traditional Dutch disease model's assumptions need to be modified to reflect the special features of transition countries.

Initial undervaluation of real exchange rate. In models of economies suffering from the Dutch disease, the real exchange rate is typically assumed to be in equilibrium at the outset of a resource boom. Some stylized patterns of both actual and equilibrium real exchange rate movements in transition countries, however, have emerged from recent research by Krajnyak and Zettelmeyer (1997) suggesting that the real exchange rate is initially undervalued and then appreciates as it slowly approaches equilibrium.

By examining real exchange rate movements in a textbook case of an economy suffering from the Dutch disease case and in the case of an economy in transition, we can discern a distinct pattern in the movements of actual and equilibrium real exchange rates. During the early phase of transition, the equilibrium real exchange rate remains broadly stable in the absence of productivity gains, but it begins to appreciate as the forces underlying the transition process gain momentum. The resource discovery will bring the equilibrium real exchange rate to a new, more appreciated level as the economy becomes wealthier.

The actual real exchange rate will probably "undershoot" its equilibrium level at the beginning of the transition process owing to the initial monetary overhang. A period of a relatively flat real exchange rate may follow as rising prices are offset by the depreciation of the nominal exchange rate. Once monetary stability improves and economic recovery begins, the actual real exchange rate starts to appreciate as the economy experiences productivity gains, capital inflows, further increases in administered prices, and trade liberalization. The announcement of the resource discovery is followed by capital inflows, a surge of domestic demand, and an even stronger exchange rate appreciation. In this situation, the real exchange rate may overshoot-that is, appreciate beyond its short-run equilibrium level-particularly if goods prices are sticky while asset prices are not. Only if this happens will there be an excessive loss of competitiveness and, possibly, a recession.

The limited empirical evidence available seems to support the proposition that real exchange rate appreciation is reinforced by resource discovery. The chart's upper panel shows average real exchange rates (measured by U.S. dollar wages) in three countries of the former Soviet Union that have substantial natural resource sectors (Azerbaijan, Kazakhstan, and Uzbekistan) and nine others that do not, starting in January 1995, when all countries we examined had more or less overcome the initial stabilization phase and resource discoveries were just being announced. While the real exchange rate is appreciating in all countries of the former Soviet Union, the appreciation is stronger in the three resource-rich countries (see table).

Strong capital inflows. Strong capital inflows are common in transition economies that have stabilized. They are particularly significant, however, in countries with large and promising natural resource sectors, and such flows only reinforce upward pressures on the real exchange rate, thereby increasing the possibility of overshooting.

Substantial current account deficits associated with such large capital inflows may be sustainable, however, if they are caused by foreign direct investment that increases the economy's productive potential, its permanent income, and equilibrium real exchange rate; they reflect the saving and investment decisions of the private sector (that is, public sector deficits are small); and the risk of an external shock that could worsen the prospects for further exploration of resource deposits (for example, a regional war) is low.

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Estimated competitive position in selected transition economies, 1996

Underdeveloped financial markets and institutions. Since financial markets in transition economies are still developing, the problems created by the Dutch disease may be complicated by two other factors. First, savings (that is, profits) in the booming oil sector may not be effectively channeled to investments in other sectors, thereby distorting the structure of the non-oil traded goods sector. Second, weak banking systems generate little public trust, and encourage substantial dollarization and a low degree of monetization.

A resource-rich transition economy may face additional hurdles in maintaining a viable non-oil traded goods sector. On the one hand, ill-defined and unenforceable property rights may impede much-needed entrepreneurship, thus raising the risk premium on investments in the non-oil traded goods sector and indirectly supporting the flow of resources into the booming sectors; on the other hand, enterprise restructuring and hard budget constraints will eliminate unproductive enterprises, many of which are in the traditional traded goods sectors. Thus, the "natural" shrinkage of traditional sectors will reinforce the structural changes triggered by the Dutch disease.

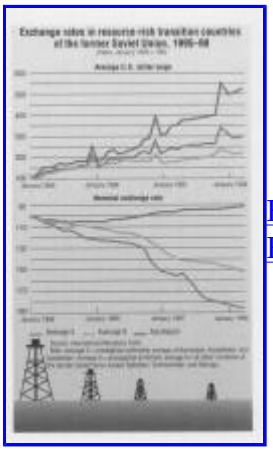
Policy conclusions

Short-term adjustment. Azerbaijan could be vulnerable to short-term recession, since its real exchange rate has appreciated more than those of the other countries of the former Soviet Union (see chart, upper panel); there was a nominal appreciation (see chart, lower panel); and monetary conditions have recently tightened (owing not to deliberate policies but rather to weaknesses in the banking system). The appreciation of its real exchange rate need not be of concern, however, since it may still be well below its equilibrium level (by about 35 percent, using the Krajnyak and Zettelmeyer (1997) model). On the contrary, growth is resuming, even in the non-oil traded goods sector.

Preserving macroeconomic stability. Azerbaijan's mediumterm monetary policy aims at maintaining low inflation to consolidate its still-fragile macroeconomic stabilization. Its annual inflation target of 5-6 percent during the period following the discovery of oil is ambitious. The authorities aim to keep broad money growth slow and to avoid too strong a reserve accumulation and excessive domestic credit expansion, which were typical for three countries that suffered from the Dutch disease in the 1970s: Ecuador, Indonesia, and Nigeria (hereinafter referred to as comparator countries).

In regard to exchange rate policy, Azerbaijan has permitted its currency to appreciate in nominal terms, reflecting the authorities' recognition of underlying inflationary tendencies (created by relative price adjustments undertaken in an economy characterized by downward price rigidities and administrative price increases). The central bank has been selling foreign exchange in excess of anticipated inflows in order to limit growth of the monetary base.

The principal aim of Azerbaijan's fiscal policy is to smooth the domestic absorption pattern over time and to support a non-inflationary monetary policy. Gradually declining deficits will be primarily financed by oil signature bonuses (payments by oil companies when they sign production sharing agreements), external loans, and sales of treasury bills, but not by central bank credits. Destabilizing swings in public expenditure are to be avoided by using the petroleum revenue account described later in this article. This strategy to achieve fiscal surpluses differs from those of the comparator countries. While Ecuador and Indonesia maintained modest fiscal deficits of 2-4 percent of GDP following the 1973 oil price boom, Nigeria's fiscal policies reflect the "ratchet" effect-that is, its oil revenues were spent soon after they were incorporated into the budget.



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Exchange rates in resource-rich transition countries of the former Soviet Union, 1995-98

Adjusting to unbalanced growth. Why is any policy action called for in Azerbaijan to control the shift of economic activity to the booming oil sector? First, traditional export industries may have a role to play in human capital formation and/or in maintaining and creating backward linkages to other sectors. Second, the concentration of all (additional) wealth in one booming sector promotes excessive rent-seeking behavior and wasting of the newly acquired wealth. Third, maintaining diversity in its export sector could reduce Azerbaijan's exposure to external shocks such as a sudden drop in world petroleum prices or a disruption in oil transportation routes. Fourth, prolonged overshooting of the real exchange rate may destroy a manufacturing base that cannot easily be rebuilt.

The dangers posed by unbalanced growth need to be addressed using macroeconomic and structural

policies while avoiding distortive microeconomic intervention, such as imposition of tariff protection or subsidies. A major goal is to dampen the appreciation of the real exchange rate by curbing the demand for foreign capital and limiting domestic demand pressures-in other words, by stimulating domestic saving. In the public sector, net savings are to be achieved by implementing tight fiscal policies, including the timely repayment of external debt and the buildup of budget surpluses. Household saving is to be stimulated by shifting from direct income taxation to indirect consumption taxation (for example, the levying of value-added taxes (VATs) and excises), reforming the pension system, and establishing sound banks. Net business sector savings are to be promoted by reducing enterprise profit taxation and encouraging cautious wage policies.

Another building block of Azerbaijan's strategy to slow real exchange rate appreciation is to eliminate formal and informal trade barriers. This will allow foreign exchange outflows (for increased imports) to compensate partially for capital inflows. Similarly, capital account liberalization would ensure the unhindered transfer of savings abroad and reduce appreciation pressures.

Supply-side reforms will enable the non-oil traded goods sector to operate in a market environment. Measures include, inter alia, government restructuring, simplifying the tax code, and undertaking privatization and land reform.

The banking sector will be restructured to help channel oil sector savings into investment in the non-oil sector. With these policies Azerbaijan may be able not only to eliminate the "appreciation premium" of a transition economy but also to achieve a somewhat slower real appreciation than Ecuador, Indonesia, and Nigeria did in the 1970s.

Spending oil revenues wisely. How should the oil wealth accruing to Azerbaijan's government be best used in the public interest? The present scheme of allocating oil revenues through a special oil account at the central bank avoids overspending and ratchet effects. Oil revenues are within a clear accounting framework, and their distribution is therefore less prone to distortion. Surplus funds held by the central bank are part of Azerbaijan's official international reserves and are saved abroad. However, this scheme has drawbacks: profit sharing between the central bank and the government becomes difficult, and genuine central banking functions become blurred. Therefore, it can be considered only an intermediate solution.

Another option would be to transfer oil revenues to an oil trust fund managed outside the budget and supervised jointly by the monetary and fiscal authorities. This fund's proceeds could be used for public investment projects or a funded pension scheme, or (preferably) held outside Azerbaijan (following the Kuwait Investment Office model).

To the extent that additional oil revenues would accrue to the budget, the question arises as to how they should be used. In principle, the choice would be between reducing taxation or increasing public consumption or investment. For Azerbaijan, the latter seems most sensible, since its physical infrastructure is seriously deficient. Such investments would also support the goal of mitigating real exchange rate appreciation, because expenditures on physical capital formation tend to be more import-intensive than expenditures on consumption.

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[Sidebar]
This article draws on the authors' "How to Deal with Azerbaijan's Oil Boom? Policy Strategies in a Resource-Rich Transition Economy," IMF Working Paper 98/6 (Washington: International Monetary Fund, 1998).

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